

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A method, comprising:

receiving, at an information object repository, a request from a client for an information object at an address identified by a uniform resource locator (URL);

mapping the URL to a corresponding anycast address for the information object, wherein the information object repository is selected according to specified performance metrics by mapping an address of the client to one or more addresses of information object repositories and to one or more addresses of routers that have a best type-of-service distance to the address of the client, wherein the mapping the address of the client to the one or more addresses of information object repositories and to the one or more addresses of routers is performed by executing a Web Information Locator by Distance (WILD) communication protocol between the routers that store one or more first type-of -service distances from one or more information object repositories to [[an]] the address of [[a]] the client and one or more second type-of-service distances from one or more routers to the address of the client, wherein the routers communicate to each other WILD update messages to update mapping of client address ranges to the addresses of Web caches and redirecting routers, wherein at least one of the one or more WILD update message includes a basic routing table, a list of first type-of-service distances from the Web caches to destinations, and a list of type-of-service distances from the redirecting routers to the destinations one or more information object repositories to the address of the client, wherein the WILD communication protocol runs on top of a Transmission Control Protocol (TCP);

determining whether the anycast address can be resolved into a real unicast address that is uniquely identified for the information object in the Internet; resolving the anycast address for

the information object to the unicast address for the information object, if the corresponding anycast address can be resolved into the unicast address, wherein resolving the anycast address comprises sending an anycast resolution query to the anycast address according to an anycast address resolution protocol (AARP);

returning a failure if the anycast address cannot be resolved into the unicast address; and
obtaining a copy of the information object using the resolved unicast address.

2. (Cancelled)

3. (Previously Presented) The method of claim 1 further comprising sending the information object to the client.

4. (Original) The method of claim 3 wherein the request is received at an information object repository that is topologically closer to the client than any other information object repository.

5. (Original) The method of claim 4 wherein the information object repository is selected according to specified performance metrics.

6. (Original) The method of claim 5 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository.

7. (Currently Amended) An information object repository comprising:

a memory to store one or more first type-of-service distances from one or more information object repositories to an address of a client and one or more second type-of-service distances from one or more routers to the address of the client; and a processor configured to map a uniform resource locator (URL) for an information object to a network layer anycast address, wherein the information object repository is selected according to specified performance metrics by mapping the address of the client to one or more addresses of the information object repositories and to one or more addresses of the routers that have a best type-of service distance to the address of the client, wherein the processor is configured to map the address of the client to the one or more addresses of information object repositories and to the one or more addresses of routers by executing a Web Information Locator by Distance (WILD) communication protocol that includes communicating to neighboring routers WILD update messages to update mapping of client address ranges to the addresses of Web caches and redirecting routers, wherein ~~at least one of the~~ a WILD update message includes a basic routing table, a list of ~~first~~ type-of-service distances from the Web caches to destinations, and a list of type-of-service distances ~~from the redirecting routers to the destinations~~ one or more information object repositories to the address of the client and receiving, from the neighboring routers, ~~at least one of the~~ the first type-of-service distances from the one or more information object repositories to the address of the client the WILD update messages, wherein the WILD protocol ~~that~~ runs on top of a Transmission Control Protocol (TCP); to determine whether the network layer anycast address can be resolved into a real unicast address that is uniquely identified for the information object in the Internet, to resolve the anycast address for the information object to a unicast address for the information object, if the anycast address can be resolved into the unicast address; to send an anycast resolution query to the anycast address according to an anycast address resolution protocol

(AARP), to return a failure if the anycast address cannot be resolved into the unicast address; and to obtain a copy of the information object using the resolved unicast address.

8. (Previously Presented) The information object repository of claim 7 being further configured to advertise the anycast address using a network layer anycast routing protocol.

9. (Currently Amended) A network, comprising:

at least one client configured to request an information object using a uniform resource locator (URL);

a plurality of routers having storage means for storing one or more first type-of-service distances from one or more information object repositories to an address of a client and one or more second type-of-service distances from one or more routers to the address of the client; and

an information object repository configured to receive the request for the information object and to map the URL into a network layer anycast address, wherein the information object repository is selected according to specified performance metrics by mapping an address of the client to one or more addresses of information object repositories and to one or more addresses of the routers that have a best type-of-service distance to the address of the client, wherein the mapping the address of the client to the one or more addresses of information object repositories and to the one or more addresses of the routers is performed by executing a Web Information Locator by Distance (WILD) communication protocol between the routers, wherein the routers communicate to each other WILD update messages to update mapping of client address ranges to the addresses of Web caches and redirecting routers, wherein at least one of the one or more WILD update message includes a basic routing table, a list of the type-of-service distances from the Web caches to destinations, and a list of type-of-service distances from the redirecting

routers to the destinations one or more information object repositories to the address of the client,
wherein the WILD communication protocol runs on top of a Transmission Control Protocol
(TCP),

- to determine whether the network layer anycast address can be resolved into a real unicast address that is uniquely identified for the information object in the Internet;
- to resolve the network layer anycast address into the unicast address if the network layer anycast address can be resolved into the unicast address,
- to send an anycast resolution query to the anycast address according to an anycast address resolution protocol (AARP),
- to obtain a copy of the information object using the resolved unicast address and
- to return a failure if the anycast address cannot be resolved into the unicast address.

10. (Canceled)

11. (Previously Presented) The network of claim 9 wherein the information object repository is topologically closer to the client than any other of a number of information object repositories in the network.

12. (Original) The network of claim 11 further comprising a Web router configured to select the information object repository that is closer to the requesting client than any other of the number of information object repositories in the network without regard as to whether the information object is actually stored at the selected information object repository.

13. (Original) The network of claim 12 wherein the Web router is further configured to select the selected information object repository according to specified performance metrics.

14. (Original) The network of claim 13 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository.